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IS 11512 (1985): Faller Screws for Jute Drawing Frames [TXD
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IS : 11512 - 1985

Indian Standard

SPECIFICATION FOR

FALLER SCREWS FOR JUTE DRAWING FRAMES

UDC 677·051·188·9 : 621·882·2



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INDIAN STANDARDS INSTITUTION

MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG

NEW DELHI 110002

Indian Standard

SPECIFICATION FOR FALLER SCREWS FOR JUTE DRAWING FRAMES

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Indian Standard

**SPECIFICATION FOR
FALLER SCREWS FOR JUTE DRAWING FRAMES**

O. F O R E W O R D

0.1 This Indian Standard was adopted by the Indian Standards Institution on 10 December 1985, after the draft finalized by the Jute Mill Accessories and Jute Machinery Spare Part Sectional Committee had been approved by the Textile Division Council.

0.2 Faller screws are used in the jute drawing frames. This standard has been published in order to provide guidance to the manufacturers so that faller screws of acceptable quality are available to the jute industry. This would ensure higher productivity due to better interchangeability and smooth working.

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the requirements of faller screws for use in drawing frames in a jute mill.

2. MANUFACTURE

2.1 Material — Faller screws shall be manufactured from suitable steel so as to obtain the specified hardness. Steel having designation 14C 14S 14 as per IS : 1570 (Part 3)-1979† is suitable for this purpose.

2.2 Finish — Faller screws shall be case-hardened and ground finished.

*Rules for rounding off numerical values (*revised*).

†Schedules for wrought steels for general engineering purposes: Part 3 Carbon and carbon manganese free cutting steels (*first revision*).

3. REQUIREMENTS

3.1 Dimension

3.1.1 Nominal dimensions of the screws shall be as agreed to between the manufacturer and the purchaser or in the absence of any agreement those shall be as declared by the manufacturer.

3.1.2 Tolerances — The dimensional requirements of the faller screws (see Fig. 1) shall be subject to the following tolerances:

Overall length (A), mm	± 0.25
Thread length (B), mm	± 0.25
Outside diameter (ϕD_1), mm	$- 0.05$ $- 0.10$
Core diameter (ϕD_2), mm	$- 0.02$ $- 0.13$
End diameter for spur gear (ϕD_3), mm	$+ 0.000$ $- 0.050$
Lead angle, minutes	$\pm 0^\circ - 15' - 0''$

3.2 Hardness — Faller screws shall have hardness of 58 to 62 HRC with minimum case depth of 1 mm.

3.2.1 Hardness shall be determined as per IS : 1586-1968*.

3.2.2 Case depth shall be determined as per IS : 6416-1971†.

4. MARKING

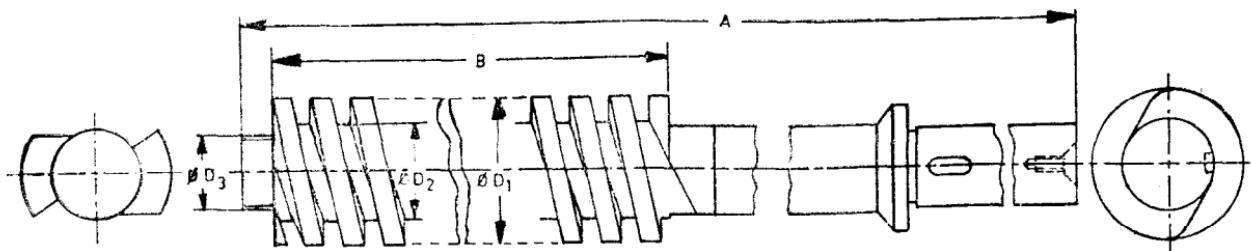
4.1 Unless otherwise agreed to between the buyer and the manufacturer each faller screw shall be legibly marked with the manufacturers' name or trade-mark.

4.1.1 The faller screws may also be marked with the ISI Certification Mark.

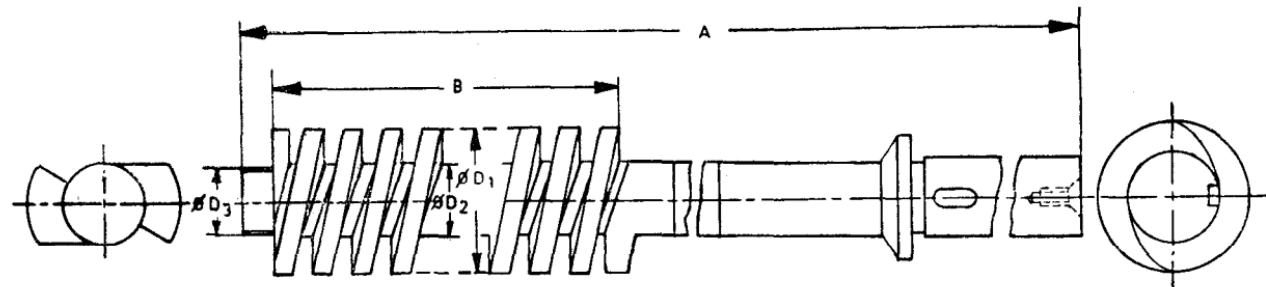
NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

*Methods for Rockwell hardness test (B and C scales) for steel (*first revision*).

†Methods for measuring case depth of steel.



TOP FALLER SCREW RH



TOP FALLER SCREW LH

FIG. 1 FALLER SCREW FOR JUTE DRAWING FRAME

5. SAMPLING AND CRITERIA FOR CONFORMITY

5.1 Lot — In a consignment, all the faller screws of the same type and manufactured under the same conditions shall constitute a lot.

5.1.1 For conformance of this specification, the sample shall be drawn from the lot and it shall be in accordance with Table 1.

**TABLE 1 NUMBER OF FALLER SCREWS TO BE
SELECTED FOR SAMPLING**

(*Clauses 5.1.1 and 5.2.2*)

LOT SIZE (1)	SAMPLE SIZE (2)	ACCEPTANCE NUMBER (3)
Up to 150	8	1
151 to 300	13	2
301 to 500	20	3
501 to 1 000	32	5
1 001 and above	50	7

5.2 Number of Tests

5.2.1 All the faller screws selected in the sample shall be tested for the requirements given in 3.1.2.

5.2.2 For hardness and case depth, three faller screws shall be selected from the sample already selected as given in col 2 of Table 1 and tested.

5.3 Criteria for Conformity

5.3.1 Whenever a faller screw fails to meet any of the dimensional requirements given in 3.1.2 it shall be declared as defective. The lot shall be declared as conforming to the requirements of this clause if the number of defective faller screws does not exceed the corresponding acceptance number given in col 3 of Table 1.

5.3.2 For hardness and case depth, all the three faller screws shall pass the test.

5.3.3 The lot shall be declared as conforming to the requirements of this standard if 5.3.1 and 5.3.2 are satisfied.

6. PACKING

6.1 Faller screws shall be packed in such a way so as to ensure complete protection from rust.